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S/144/60/000/05/010/014
E041/E235

Design of an Automatic Self-Balancing Digital Ohmmeter

The stability of the ohmmeter depends on whether external disturbances produce supplementary delays in the operation of the relay which prevent a true balance being obtained. Table 1 shows a comparison of the calculated and measured times at which successive operations take place during the automatic measurement of a 4442.3 ohm resistor when the detector delay is 15 milliseconds and the relay coil time-constant is 10 milliseconds. The error in calculation is 15 to 17%. There are 2 figures, 1 table and 7 Soviet references.

ASSOCIATION: Kafedra avtomaticheskikh i izmeritel'nykh ustroystv
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digital comparator is that the sensitive element is subjected to an unbalance voltage in the form of rectangular pulses of variable height (Fig 2a). The height and polarity of the pulses and their relative disposition depend on the quantity being measured. The length of the pulse depends on the character of the transient processes at the preceding contact, the high-speed elements of the loop and also on external disturbances. The leading edge of the pulse (t_1) is defined by the instant at which the commutator arrives from the preceding contact and is independent of the control current. The trailing edge depends on the relay current and the relay lag. The pulse width is thus variable. Using Laplace transforms and, in particular, the displacement theorem, the control current is given by Eq (8). Hence the transfer function for the ohmmeter is Eq (9) assuming that: amplifier limiting is ideal; the transfer function of the bridge itself is considered linear; amplifier delay is neglected in comparison with that in the phase-sensitive detector or

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EO41/E235

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AUTHOR: Malov, D.I., Aspirant

TITLE: Design of an Automatic Self-Balancing Digital Ohmmeter⁶

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, Nr 5, pp 99-107 (USSR)

ABSTRACT: The design proceeds in four stages: the calculation of the shape of the current-time for the control circuit throughout the balancing cycle; determining the instants of switching-in and switching-out the sensitive element of the instrument within the limits of each measurement contact; finding the stability conditions and the margin of stability; analysis of the dynamic errors of the instrument. It has previously been suggested by the author (Ref 2) that it is convenient to consider a digital ohmmeter as a pulse filter in which the successive stages of balancing the resistance are distributed in time with delays t_m (Fig 1) according to Eq (1). When the frequency of the current-change $I_p(t)$ in the control winding of the relay coincides with the rate of rotation of the commutator and the polarity is positive then at each stage the balancing resistance is reduced. A special feature of an electromechanical

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SOV/144-59-5-8/14

Some Topics in the Investigation of a High-Speed, High-Accuracy
Digital Ohmmeter

Eq (25). The error introduced by a finite 'dead zone' depends on the amplifier gain and the bridge voltage. Figures 8, 9 and 10 show how the error depends on these quantities. These graphs show that the voltage should be no more than 6 V and a 'Saturn' dry-battery is used. Table 2 shows the data reduced from 20 oscillograms measured in a 44 kilohm resistor; the total operating time is analysed into the intervals occupied by the component processes in the measurement. Figure 13 is a photograph of the instrument.

There are 13 figures, 2 tables and 13 references, 8 of which are Soviet and 5 English.

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technical Institute)

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Some Topics in the Investigation of a High-Speed, High-Accuracy Digital Ohmmeter

variation of the comparison resistor is exponential with time as in Figure 2; the basic switching circuit is shown in Figure 1. The separate ranges are $10^2 - 10^3$ ohms, $10^2 - 10^4$, $10^4 - 10^5$. The overall block diagram of the ohmmeter is Figure 3, where 1 is the range selector, 2 is the automatic balancer, 3 is the electronic sensing element, 4 is the display unit and 5 is the power supply and printer. Since a larger number of switch contacts (up to 16) are used in series than with an ordinary bridge, the selection of suitable relays is an important step in the design. Table 1 compares the contact resistance (including spring) insulation resistance, contact e.m.f. and pressure, operating time and dimensions of 9 relays to be found in the USSR. Types RS-13 and RSM-1 have been chosen. Figure 4 shows the conditions applying to the calculation of effective switching time in a cyclic controller. Design equations are derived for the comparator resistor (1), the comparison process (9), the electronic amplifier (14, 15), the phase-sensitive detector (23), the ohmmeter as a whole (24). The threshold sensitivity is given by

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AUTHOR: Malov, D.I., Aspirant

TITLE: Some Topics in the Investigation of a High-Speed, High-Accuracy Digital Ohmmeter

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektro-mekhanika, 1959, Nr 5, pp 59 - 73 (USSR)

ABSTRACT: The extended application of electrical methods to the measurement of a wide range of non-electrical quantities has led to the introduction of rapid, automatic, digital indicators both abroad (Refs 1 - 6) and in the USSR (Refs 7, 9, 11). This paper considers the design of a digital ohmmeter as a cyclically operating relay-type resistance controller and reports experimental findings. The performance achieved is: range, $10^2 - 10^7$ ohms; relative error nowhere exceeds $\pm 0.05\%$; measurement time 2 - 2.5 sec; 5-symbol read-out; size, 250 mm cube; power dissipated in resistor being measured, 0.1 W. The principle used, that of 'dynamic re-balancing' is described in Ref 9. The

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The Inter-university Scientific Conference on
Electrical Measuring Instruments and on the Technical
Means of Automation

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accurate automatic quotient-type meters in digital computations.
B. E. Kharchenko: Methods of determining the dynamic errors of
magnetic oscilloscope by simulation. P. P. Ornat'skiy:
Problems in measuring electric quantities at extremely low
frequencies by electrical indicating instruments of various
systems. L. P. Ornat'skiy: Novel types of a. c. compensators.
A. S. Kosminkov: Accuracy of bridges and a. c. compensators
suited for the control of the parameters of condensers in
series production. L. I. Stokovskiy: Characteristics of
magnetoelectric transducers in measuring instruments and
bridge induction motors which can be used in measuring
technique and automation. D. A. Borodayev: Ultrasonic
pressure- and liquid level gauges. Yu. A. Skripnitskiy:
Circuitry of a phase-sensitive commutation indicator for
of ionized-equilibrium bridges. N. P. Suvorov: The application
of ionized-equilibrium bridges. N. P. Suvorov: The application
considerable simplification of the design of the apparatus
and the circuitry used in the measurement of non-electric
quantities. V. A. Kuznetsov: Methods of increasing the
sensitivity of oxygen gas analyzers. P. F. Soritskiy:
Design of apparatus for measuring vibration quantities.

Card 4/5

V. V. Panyukov: Main types of their semiconductor
resistors and possibilities of their use in measuring
circuitry in automation and measuring technique. G. N.
Novgorodskiy: Development of measuring amplifiers with
semiconductor triodes. Ya. V. Novosel'tsev, E. A. Sharnov,
Ye. Ye. Aronov, Ye. P. Ugryumov: Precision semiconductor
resistors for measuring the Hall effect. Methods of
principally P. C. Mikulin and A. Bezukladnikov: Methods of
measuring the Hall effect. Methods of measuring the Hall effect
resistors and transducer field strength by means of bismuth
principles. A resolution adopted by the Hall effect
meeting of the Conference, which indicates closing plenary
improving and coordinating scientific research work in the
field of automation, electric measuring- and computing
technique.

Card 5/5

MALOV, D.I.

60V/144-58-9-18/18

AUTHOR: Gikis, A. F., Candidate of Technical Sciences, Docent

TITLE: Inter-University Scientific Conference on Electric Measuring Instruments and Technical Means of Automation (Mezhvuzovskaya nauchnaya konferentsiya po elektromeritel'nyy priboram i tekhnicheskim sredstvam avtomatiki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 9, pp 130-135 (USSR)

ABSTRACT: The conference was held at the Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenin) (Leningrad Electro-technical Institute imeni V. I. Ul'yanov (Lenin)) on November 11-15, 1958. The representatives of eleven higher teaching establishments and three research institutes participated and a large number of specialists of various industrial undertakings were present.

Aspirant D. I. Malov (Novocherkassk Polytechnical Institute) presented the paper "High accuracy automatic d.c. bridge with numerical reading off".

Assistant V. A. Ivantsov (Novocherkassk Polytechnical Institute) presented the paper "Measuring element Card 4/13 for accurate automatic comparison metering instruments

cont.

with numerical reading off"; the sensitivity threshold of such instruments must be of the order of 10 μ V and 30 μ V in a bridge-circuit in the case of an input resistance of at least 100 kOhm. The response time should be of the order of 5 msec. The design of the instrument described by him is based on an a.c. amplifier, whereby the d.c. voltage to be measured is transformed into a.c. by a vibrator with a noise level of the order of 1 μ V. The instrument is phase sensitive and stability against overloads was achieved by using a 2-way diode limiter.

Docent B. M. Smolov (Leningrad Electro-Technical Institute) read the paper "Non-linear electronic voltage transformers with a numerical output", in which he considered two methods of transforming voltages into a numerical code.

SOV/144-58-7-9/15

An Automatic Direct Current Bridge giving Numerical Readings instead of insulating material and it will be seen that this increases the operating time by a factor of four or so. Fig 5 gives the delay time of the electro magnet as a function of current for an air gap of 1 mm and it will be seen that with a current of 0.3 A the delay time does not exceed 12.5 milliseconds. The various operating times are added up and it is shown that the least time that the brush can remain on a contact with the particular conditions chosen is 33 milliseconds. There are 6 figures, no references.

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An Automatic Direct Current Bridge giving Numerical Readings

It will be seen that the bridge overshoots once or twice before balance is reached. The main components of the circuit and the method of operation of the equipment are then described. The operating time of the bridge is considered and is resolved into a number of components for purposes of discussion. Formula (6) is given for the operating time which depends on the value of the resistance being measured. When the numerical value is high the time is short and when the numerical value is low the time is long, thus a resistance of 99999 is measured in one second and a resistance of 10000 ohms is measured in 2.9 secs. It is shown how the overall operating time depends on the operating time of various components. Relay type RKN was chosen for the decade switch. The operating time of this relay varies considerably, depending upon the conditions as will be seen from the operating time curve given in Fig 4 as a function of applied voltage. Curve 1 applies to a relay with 18 contact springs and the operating time at rated voltage of 48 V is 1.8 milliseconds. Curve 2 applies to a relay in which the first coil former is made of copper

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An Automatic Direct Current Bridge giving Numerical Readings

voltage of 10 V even on the megohm range. The circuit of the automatic bridge using decade switches is given in Fig 2; the circuit is based on the principle of dynamic overcompensation of each of the decades with subsequent return to under compensation when approaching the measured value from below, or vice versa when approaching the measured value from above. The principle of dynamic overcompensation means that when a step beyond the balance point is taken the voltage in the measuring diagonal of the bridge is reversed; this operates the output relay of the electronic measuring device which automatically returns the measuring circuit to the previous under balanced condition. Various methods of returning the bridge from over balance to under balance are considered briefly. It is important to retard the decade switches so that they do not overshoot. If the retardation mechanism is such that it is necessary to stop the driving motor the operating time is too great and it is quicker to disconnect the motor by a magnetically operated clutch. A graph illustrating the principle of balancing the automatic bridge is given in Fig 3.

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SOV/144-58-7-9/15

AUTHOR: Malov, Dmitriy Ivanovich, Aspirant

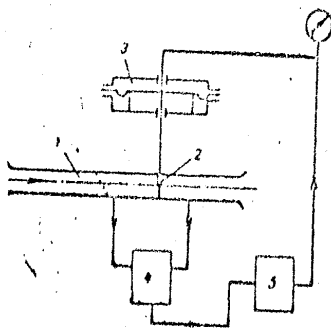
TITLE: An Automatic Direct Current Bridge giving Numerical Readings (Avtomaticheskij most postoyannogo toka s tsifrovym otschetom)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1958, No 7, pp 86-92 (USSR)

ABSTRACT: The Measurements Laboratory of the Novocherkassk Polytechnical Institute is developing and investigating circuits for automatic electro-mechanical instruments giving numerical readings. This article describes an automatic resistance measuring bridge giving numerical readings, and possible operating speeds are discussed. The circuit diagram of the bridge is given in Fig 1. It has six ranges; the lowest is 1 - 10 ohms and the highest 100000 - 1000000 ohms. In order to increase the bridge sensitivity at the upper limits of measurements without raising the supply voltage or the sensitivity of the measuring device the circuit is arranged so that the points of connection of the supply voltage and the measuring device can be changed. Because of this the required sensitivity can be obtained with an applied

Card 1/4

ACC NR: AP6015686



1--pipeline; 2--control element; 3--actuator; 4--differential manometer; 5--regulator

SUB CODE: 13/ SUBM DATE: 14Feb64

Card 2/2

ACC NR: AP6015686 (A) SOURCE CODE: UR/0413/66/000/009/0085/0085

INVENTOR: Garber, Ye. D.; Malov, B. P.; Stegalichev, Yu. G.; Skvortsov, Ye. I.

ORG: None

TITLE: A flowmeter. Class 42, No. 181320

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 85

TOPIC TAGS: manometer, flow meter

ABSTRACT: This Author's Certificate introduces a flowmeter for liquids or gases which contains a differential manometer. The unit is designed for increased accuracy in flow measurement over a wide load range. The instrument contains a control unit and an actuating mechanism with a control element which has linear operating characteristics. The input of the control unit is connected to the differential manometer which measures the pressure drop across the control element. The output of the control unit is connected to the actuating mechanism of the control element.

UDC: 621-531.3

Card 1/2

MALOV, B. S. (Cand. Tech. Sci.); IL'YIN, V. A. (Dr. Tech. Sci.)

"Basic questions of the theory of telemeasurement."

paper read at the Session of the Acad. Sci. USSR, on Scientific Problems of Automatic Production, 15-20 October 1956.

Automatika i telemekhanika, No. 2, 1957, p. 182-192.

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KOZLOVSKIY, Boris Ivanovich; MALOV, Boris Prokov'yevich; PAVLOV, Valeriy Georgiyevich; SMEDYUKOV, S.A., nauchnyy red.; ALEKSEYENVA, M.N., red.; LEVOCHKINA, L.I., tekhn. red.

[Automatic regulators for main steam power plants on ships; design, installation, and operation] Avtomaticheskie regulatory glavnykh sudovykh parosilovykh ustanovok; konstruktsiya, naladka i ekspluatatsiya. Leningrad, Gos. soiuзное izd-vo sudostroitel'noy promyshl., 1958. 318 p. (MIRA 11:10)

(Boilers, Marine)

MALOV, A. V.

MALOV, A. V. -- "Influence of a Diverse Level of Feeding, Care, and Maintenance of Calves on Their Growth, Development, and Subsequent Milk Productivity." All-Union Sci Nes Inst of Animal Husbandry, Stalingrad, 1955. (Dissertations for the Degree of Candidate of Agricultural Sciences)

SO: Knizhnaya Letopis: No. 39, 24 Sept 55

RYASHENTSEV, N.P., kand. tekhn. nauk; MALOV, A.T.; KAZANOV, V.D.;
TIMOSHENKO, Ye.M., kand. tekhn. nauk; FROLOV, A.V., kand.
tekhn. nauk

Introducing a riveter with an electromagnetic percussion unit
for riveting hinged joints. Biul. tekhn.-ekon. inform. Gos.
nauch.-issl. inst. nauch. i tekhn. inform. 18 no.10:18-19
0 '65. (MIRA 18:12)

CHURABO, Dmitriy Dmitriyevich; MALOV, A.N., kand. tekhn. nauk
rezensent; SHARLOVSKIY, Yu.V., izzh., red.

[Parts and units of instruments; their design and construction. A handbook] Detali i uzly priborov; konstruirovaniye i
raschet. Spravochnoe posobie. Moskva, Mashinostroyeniye,
1965. 710 p. (MIRA 18:12)

MALOV, Aleksey Nikolayevich; KOVALEV, M.P., Inzh., retsenzent

[Feed mechanisms for machine tools] Zagruzochnye ustroi-
stva dlia metallorezhashchikh stankov. Moskva, Mashino-
stroenie, 1965. 441 p. (MIRA 18:11)

KOSHKIN, L.N., doktor tekhn. nauk; KAUFMAN, L.M., prof., doktor tekhn. nauk, retsenzent; MALOV, A.N., prof., red.

[Overall automation of industrial production based on transfer-machine lines] Kompleksnaia avtomatizatsiia proizvodstva na baze rotornykh linii. Moskva, Mashinostroenie, 1965. 277 p. (MIRA 18:8)

PROSKURYAKOV, Yu.G.; SHNEYDER, Yu.G., kand. tekhn. nauk,
retsenzent; MALOV, A.N., prof., retsenzent; FEDOROV,
V.B., kand. tekhn. nauk, retsenzent; STESHENKO, N.N.,
inzh., red.

[Hardening and sizing working methods] Uprochniatushche-
kalibriushchie metody obrabotki; spravochnoe posobie.
Moskva, Mashinostroenie, 1965. 205 p. (MIRA 19:1)

VOLCHKEVICH, L.I.; USOV, B.A.; LEBEDEV, A.S., inzh., retsenzent;
YARKOV, A.M., inzh., retsenzent; MALOV, A.N., prof.,
red.

[Automatic feed mechanisms] Avtooperatory. Moskva, Ma-
shinostroenie, 1965. 142 p. (MIRA 18:12)

BOBROV, V.P., kand. tekhn. nauk; KOZ'FEDYKH, Yu.K., inzh.,
retsenzent; MALOV, A.N., prof., red.

[Design of feeding and conveying devices for machine
tools and automatic lines] Proektirovanie zagruzochno-
transportnykh ustroystv k stankam i avtomaticheskim
liniiam. Moskva, Mashinostroenie, 1964. 280 p.
(MIRA 18:1)

TSIPORIN, Yu.A.; MALOV, A.N., kand. tekhn. nauk, prof., retsenzent;
KUZ'MIN, V.V., inzh., retsenzent

[Mechanisms of technological equipment; machine tool at-
tachments] Mekhanizmy tekhnologicheskoi osnastki; stanoch-
nye prispособleniia. Moskva, Izd-vo "Mashinostroenie," 1964.
339 p. (MIRA 17:8)

MALOV, A.N.; BEZMENOV, A.Ye., kand. tekhn. nauk, retsenzent;
STROGANOVA, L.P., inzh., red.

[Mechanization and automation of assembly work in the
instrument industry] Mekhanizatsiia i avtomatizatsiia
sborochnykh rabot v priborostroenii. Moskva, Izd-vo
"Mashinostroenie," 1964. 351 p. (MIRA 17:7)

VOLKOV, S.I., kand. tekhn. nauk [deceased]; GORODETSKIY, I.Ye.,
 doktor tekhn. nauk, prof. [deceased]; GOROSHKIN, A.K.,
 inzh.; DOSCHATOV, V.V., inzh.; ZAMALIN, V.S., inzh.;
 KEDROV, S.M., kand. tekhn. nauk; MALOV, A.N., kand.
 tekhn.nauk, prof.; MARDANYAN, M.Ye., inzh.; PANCHENKO,
 K.P., kand. tekhn. nauk; ROZHDESTVENSKIY, L.A., kand. tekhn.
 nauk; SEKRETEV, D.M., inzh.; SYROVATCHENKO, P.V., kand.
 tekhn. nauk; TAURIT, G.E., inzh.; EL'YASHEVA, M.A., kand.
 tekhn. nauk; YAKUSHEV, A.I., doktor tekhn.nauk, prof.; KOVAN,
 V.M., doktor tekhn.nauk, prof., red. [deceased]; SERGEYEV,
 V.M., inzh., red. izd-va; CHERNOVA, Z.I., tekhn. red.; EL'KIND,
 V.D., tekhn. red.

[Handbook for the mechanical engineer] Spravochnik tekhnologa-
 mashinostroitelia; v dvukh tomakh. Glav. red. V.M.Kovana. Mo-
 skva, Mashgiz. Vol.2. 1963. 912 p. (MIRA 16:7)
 (Machinery--Design and construction)

MALOV, Aleksey Nikolayevich; SHOFMAN, L.A., doktor tekhn. nauk,
retsenzent; SHEKHTER, V.Ya., kand.tekhn. nauk, red.;
VILLER, G.L., red.; ANIKINA, M.S., red. izd-va; KARPOV,
I.I., tekhn. red.

[Technology of cold stamping] Tekhnologiya kholodnoi shtam-
povki. Izd.3., perer. Moskva, Oborongiz, 1963. 563 p.
(MIRA 16:10)

(Sheet-metal work)

RUVINOV, D.Ya.; MALOV, A.N., prof., retsenzents; SEMENCHENKO, V.A.,
red. izd-va; EL'KIND, V.D., tekhn.red.

[Automatic feed of centerless grinding machines] Avtomaticheskaya zagruzka bestsentrovoshlifoval'nykh stankov. Moskva, Mashgiz, 1963. 103 p. (MIRA 16:4)
(Feed mechanisms) (Grinding machines)

BELEVTSSEV, A.T., kand. tekhn. nauk; GOLIKOV, V.I., kand. tekhn. nauk;
 GOTSERIDZE, R.M., inzh.; YEFIMOV, V.P., kand. tekhn. nauk
 [deceased]; KOPANOVICH, Ye.G., kand. tekhn. nauk; MALOV, A.N.,
 prof.; PARFENOV, O.D., kand. tekhn. nauk; ROZENBERG, A.G.,
 tekhn.; SEMIBRATOV, M.N., kand. tekhn. nauk; SKURATOV, A.Ye.,
 kand. tekhn. nauk; SOKOLOVSKIY, I.A., kand. tekhn. nauk;
 SYROVATCHENKO, P.V., kand. tekhn. nauk; TISHCHENKO, O.F., doktor
 tekhn. nauk; USHAKOV, N.N., kand. tekhn. nauk; CHUMAKOV, V.P.,
 kand. tekhn. nauk; SHAL'NOV, V.A., kand. tekhn. nauk; SHISHKIN,
 V.A., kand. tekhn. nauk; YUZHNYI, I.I., inzh.; BLAGOSKLONOVA,
 N.Yu., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Manual for engineers in the instrument industry] Spravochnik
 tekhnologa-priborostroitelia. Pod red. A.N. Malova. Moskva,
 Mashgiz, 1962. 988 p. (MIRA 16:2)
 (Instrument manufacture)

ALEKSEYEV, S.A.; ZHMAKIN, D.F.; KEREKESH, V.V.; MALOV, A.N.;
MARTSINOVSKIY, P.L.; MOLOTOK, A.V.; NESMELOV, V.A.;
TEVEROVSKIY, P.A.; KHISIN, R.I.; DELITSIN, A.A., retsenzent;
SOKHNOVSKIY, M.A., retsenzent; STEFANOV, V.P., retsenzent;
STORozHEV, M.V., retsenzent; TALANOV, P.I., retsenzent;
FAL'KEVICH, A.S., retsenzent; CHERNUSHEVICH, V.A., retsenzent;
KHISIN, R.I., red.; GAL'TSOV, A.D., red.; VOL'SKIY, V.S., red.;
STRUZHESTRAKH, Ye.I., red.; SEMENOVA, M.M., red. izd-va; MODEL',
B.I., tekhn. red.

[Manual for the establishment of norms in the machinery industry
in 4 volumes] Spravochnik normirovshchika-mashinostroitelia v
4 torakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-
ry. Vol.3. [Establishing norms for founding, stamping, welding,
painting, metal plating, and woodwork] Normirovanie liteinykh,
kuznechnykh, shtampovochnykh, svarochnykh, lakokrasochnykh ra-
bot, metallopokrytii i derevoobrabotki. 1962. 671 p.
(MIRA 15:4)

(Machinery industry--Production standards)

NOVIKOV, M.P.; MALOV, A.N., prof., retsenezent; IVANOVA, N.A., red.
izd-va; CHERNOVA, Z.I., tekhn. red.; MODEL', B.I., tekhn.
red.

[Fundamentals of technological processes for the assembly
of machinery and mechanisms] Osnovy tekhnologii sborki ma-
shin i mekhanizmov. Izd.3., perer. i dop. Moskva, Mashgiz,
1962. 651 p. (MIRA 15:11)

(Machine-shop practice)
(Assembly line methods)

AZAROV, Anatoliy Semenovich; MALOV, A.N., nauchnyy red.; GORYUNOVA,
L.K., red.; TOKER, A.M., tekhn. red.

[Modernization and automation of lathes]Modernizatsiia i avto-
matizatsiia tokarnykh stankov. Moskva, Proftekhizdat, 1962.
144 p. (MIRA 16:2)
(Automation) (Lathes--Technological innovations)

MALOV, A.N., prof.; PAKNIS, A.B., *insh.*

Some problems of precision calculation in designing automatic assembling machines. *Izv.vys.ucheb.zav.; mashinostr. no.9:40-49 '62.* (MIRA 16:2)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Assembly line methods)

MALOV, Aleksey Nikolayevich, prof.; KORSAKOV, V.S., doktor tekhn. nauk,
retsenzent; IVANOVA, N.A., red. izd-va; UVAROVA, A.F., tekhn. red.

[Mechanization and automation of universal machine tools] Mekhani-
zatsiia i avtomatizatsiia universal'nykh metallovezhushchikh stan-
kov. Moskva, Mashgiz, 1961. 598 p. (MIRA 14:10)
(Machine tools—Technological innovations)
(Automation)

CHURABO, Dmitriy Dmitriyevich; MALOV, A.N., kand. tekhn. nauk, retsenzent;
KRIMERMAN, M.N., inzh., red.; YELISEYEV, M.S., red. izd-va; EL'-
KIND, V.D., tekhn. red.

[Parts and units of instruments; design and construction manual]
Detali i uzly priborov; konstruirovaniye i raschety. Spravochnoe
posobie. Izd.2., ispr. i dop. Moskva, Gos. nauchno-tekhn. izd-
vo mashinostroit. lit-ry, 1961. 518 p. (MIRA 14:9)
(Instruments--Design and construction)

TSIPORIN, Yuriy Aleksandrovich, inzh.; KUZNETSOV, Yuriy Innokent'yevich,
inzh.; MALOV, A.N., kand. tekhn. nauk, retsenzent; LESNICHENKO, I.I.,
red. izd-va; MODEL', B.I., tekhn. red.; SMIRNOVA, G.V., tekhn. red.

[Fundamentals for designing pneumatic and hydraulic attachments]
Osnovy konstruirovaniia pnevmaticheskikh i gidravlicheskh pri-
sposoblenii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-
ry, 1961. 358 p. (MIRA 14:8)

(Machine tools--Attachments)

TRESKUNOV, Petr Iosifovich; KOMAN, A.A., inzh., retsenzent; MALOV, A.N.,
inzh.; FEDOROV, N.A., inzh.; DMITRIYEV, V.P., inzh., otv.red.;
LISOK, E.I., red.; KRYAKOVA, D.M., tekhn.red.

[Cutter and press-worker] Rezhik-pressovshchik. 2., perer. 1
ispr. izd. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl.,
1961. 146 p. (MIRA 15:2)
(Hulls (Naval architecture)) (Shipbuilding)

MALOV, A.N.

GAVRILOV, A.N., prof., doktor tekhn.nauk; DEM'YANYUK, F.S., prof., doktor tekhn.nauk; MITROFANOV, S.P., kand.tekhn.nauk; KORSAKOV, V.S., prof., doktor tekhn.nauk; IVANOV, D.P., doktor tekhn.nauk; STO-ROZHEV, M.V., kand.tekhn.nauk; MALOV, A.N., kand.tekhn.nauk; KUDRYAVTSEV, I.V., prof., doktor tekhn.nauk; SHNEYDER, Yu.G., kand.tekhn.nauk; SHUKHOV, Yu.V., dotsent; KAZAKOV, N.F., kand.tekhn.nauk; ZOLOTYKH, B.N., kand.tekhn.nauk; ROZENBERG, L.D., prof., doktor tekhn.nauk; YAKHIMOVICH, D.Ya., inzh.; NIKOLAYEV, G.A., prof., doktor tekhn.nauk; VLADZIYEVSKIY, A.P., doktor tekhn.nauk; SHAUMYAN, G.A., prof., doktor tekhn.nauk; KOSHKIN, L.N., kand.tekhn.nauk; BOBROV, V.P., kand.tekhn.nauk; NOVIKOV, M.P., kand.tekhn.nauk; VIKHMAN, V.S., kand.tekhn.nauk; DERBISHER, A.V., kand.tekhn.nauk; KLIMENKO, K.I., prof., doktor ekonom.nauk; VIATEIN, A.Ye., inzh.; SATEL', E.A., prof., doktor tekhn.nauk; FOFANOV, I.G., inzh.; MATVEYENKO, V.V., inzh.; KOCHETOVA, G.F., inzh., red.izd-va; EL'KIND, V.D., tekhn.red.; TIKHANOV, A.Ya., tekhn.red.

[Present status and trends of future development of technological processes in the manufacture of machinery and instruments] Sovremennoe sostoyanie i napravleniya razvitiya tekhnologii mashinostroeniya i priborostroeniya. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 563 p. (MIRA 13:7)
(Machinery industry--Technological innovations)
(Instrument manufacture--Technological innovations) (Automation)

TISHCHENKO, Oleg Fedorovich; MALOV, A.N., kand.tekhn.nauk, retsenzent;
LEVENSON, Ye.M., inzh., red.; YELISEYEV, M.S., red.izd-va;
CHERNOVA, Z.I., tekhn.red.

[Control measuring instruments used in the manufacture of machinery]
Kontrol'no-izmeritel'nye pribory v mashinostroenii. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 311 p.
(MIRA 13:9)

(Measuring instruments)

MALOV, A.N., kand.tekhn.nauk; BABKIN, S.I., kand.tekhn.nauk; VOLKOV, S.I.,
 kand.tekhn.nauk; GORODETSKIY, I.Ye., prof., doktor tekhn.nauk;
 GOROSHKIN, A.K., inzh.; DOSCHATOV, V.V., kand.tekhn.nauk; ZAMALIN,
 V.S., inzh.; ISAYEV, A.I., prof., doktor tekhn.nauk; KEDROV, S.M.,
 kand.tekhn.nauk; MARDANYAN, M.Ye., inzh.; PANCHENKO, K.P., kand.
 tekhn.nauk; SEKRETEV, D.M., inzh.; STAYEV, K.P., kand.tekhn.nauk;
 SYROVATCHENKO, P.V., inzh.; TAURIT, G.E., inzh.; EL'YASHEVA, M.A.,
 kand.tekhn.nauk; KOVAN, V.M., prof., doktor tekhn.nauk, glavnyy red.;
 MARKUS, M.Ye., inzh., red. [deceased]; SOKOLOVA, T.F., tekhn.red.

[Manual for mechanical engineers; in two volumes] Spravochnik tekhn-
 loga mashinostroitelia; v dvukh tomakh. Glav.red. V.M.Kovan. Chleny
 red.soveta B.S.Balakshin i dr. Moskva, Gos.nauchno-tekhn.izd-vo
 mashinostroit.lit-ry. Vol.2. Pod red. A.N.Malova. 1959. 584 p.
 (MIRA 12:11)

(Mechanical engineering)

ROMANOVSKIY, V.P., dotsent, kand.tekhn.nauk; MALOV, A.N., dotsent, kand.
tekhn.nauk, retsenzent; NEDOREZOV, V.Ye., kand.tekhn.nauk, red.;
VARKOVETSKAYA, A.I., red.izd-va; BORODULINA, I.A., red.izd-va;
POL'SKAYA, R.G., tekhn.red.; PETERSON, M.M., tekhn.red.

[Handbook on cold die stamping] Spravochnik po kholodnoi
shtanpovke. Izd.3., dop. i perer. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroit.lit-ry, 1959. 648 p. (MIRA 13:1)
(Sheet-metal work)

MALOV, A. N.

PHASE I BOOK EXPLOITATION SOV/2398

25(5)

Moscow. Dom nauchno-tekhnicheskoy propagandy imeni P.E. Dzerzhinskogo

Kompleksnaya avtomatizatsiya i mekhanizatsiya v mashinostroyenii: sbornik statey (Overall Automation and Mechanization in Machine Manufacturing: Collection of Articles) Moscow, Mashgiz, 1959. 312 p. 8,000 copies printed.

Additional Sponsoring Agency: Obshchestvo po rasprostraneniya politicheskikh i nauchnykh znaniy BSPSR.

Ed.: A.N. Malov, Candidate of Technical Sciences; Tech. Ed.: B.I. Medel' (Mashgiz); H.D. Bayzal'man, Engineer.

Toolmaking (Mashgiz): This collection of articles is intended for engineering and technical personnel of plants manufacturing machines and instruments.

COVERAGE: This book acquaints industrial workers with devices and equipment necessary for the overall mechanization and automation of technological processes in machine manufacturing. Individual articles deal with general problems of mechanization and mechanization of problems arising from machine assembly shops, and with the book also includes machine production of transfer lines tested and used under actual conditions of devices and equipment tested and used under actual conditions. The source of these data was the meeting on overall mechanization and automation of technological processes held in 1957 P.E. Dzerzhinskogo (Mashgiz) essay propaganda, technical propaganda imeni P.E. Dzerzhinskogo. Scientific articles mentioned. Several of the articles are followed by references.

Trubnikov, N.V. [Candidate of Technical Sciences]. Programmed Control of Metalcutting Machine Tools 105
Boltukhin, A.K. [Engineer]. Mechanization and Automation of Machining Processes on Milling Machines 123
Klitruk, M.S. [Engineer]. Mechanization and Automation of Metalcutting Machines 172
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Lyudskiy, D.G. [Engineer]. Automatic Lines for Production of Bearings 231
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SMILYANSKIY, Zalman Gershevich; MALOV, A.N., kand.tekhn.nauk, retsenzent;
SMIRNOV, B.V., inzh., red.; BALANDIN, A.F., red.izd-va; TIKHONOV,
A.Ya., tekhn.red.; EL'KIND, V.D., tekhn.red.

[Essential techniques for checking dimensions in manufacturing
machines] Osnovy tekhniki kontrolya razmerov v mashinostroenii.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959.
245 p. (MIRA 12:8)

(Machine-shop practice)

GRIGOR'YEV, Stepan Petrovich, slesar'-lekal'shchik; GOLOVANOV, A.A.,
inzh., retsenzent; MALOV, A.N., kand.tekhn.nauk, red.; RZHA-
VINSKIY, V.V., inzh., red.izd-va; KL'KIND, V.D., tekhn.red.

[Instrument manufacture and adjustment] Slesarno-instru-
mental'nye raboty. Moskva, Gos.nauchno-tekhn.izd-vo mashino-
stroit.lit-ry, 1959. 127 p. (MIRA 13:2)
(Instrument manufacture)

MALOV, A.N.

"Contemporary Construction in Bunker Loading Equipment," in book Complex Automation and Mechanization in Mechanical Engineering, State Scientific-Technical Publishing Office for Machine Building Literature, Moscow, 1959.

MALOV, A.N.

BELYAYEV, V.N., kand.tekhn.nauk; BIRGER, I.A., doktor tekhn.nauk; DEMIDOV, S.P.,
kand.tekhn.nauk; KOROTKOV, V.P., kand.tekhn.nauk; KUDRYAVTSEV, V.N.,
doktor tekhn.nauk, prof.; MARTYNOV, A.D., kand.tekhn.nauk; NIBERG,
N.Ya., kand.tekhn.nauk; PONOMAREV, S.D., doktor tekhn.nauk, prof.;
PRONIN, B.A., kand.tekhn.nauk; PUSH, V.E., kand.tekhn.nauk;
SIEZNIKOV, G.I., inzh.; STOLBIN, G.B., kand.tekhn.nauk; TAYTS, B.A.,
doktor tekhn.nauk; ACHERKAN, N.S., doktor tekhn.nauk, prof.
glavnyy red.; VLADISLAVLEV, V.S., red [deceased]; MALOV, A.N., red.;
POZDNYAKOV, S.N., red.; ROSTOVYKH, A.Ya., red.; CHERNAVSKIY, S.A.,
kand.tekhn.nauk, red.; MARKUS, M.Ye., inzh., red. [deceased];
KARGANOV, V.G., inzh., red.graficheskikh rabot; SOKOLOVA, T.F.,
tekhn. red.

[Metalworker's reference book in five volumes] Spravochnik metallista
v piati tomakh. Chleny red. soveta V.S.Vladislavlev i dr. Moskva,
Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry. Vol.2. (Pod red.
S.A.Chernavskogo). 1958. 974 p. (MIRA 11:5)
(Mechanical engineering)

MALOV, A.N.

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25(2), (7) b3 PHASE I BOOK EXPLANATION

Spravochnik metallista v yuzh. t. 4, (Metals Engineering Handbook in Five Volumes, Vol 4) Moscow, 1958. 778 p. 90,000 copies printed.

M. (Title page): A.N. Malov, Candidate of Technical Sciences; Ed. (Inside book): V.I. Krylov, Engineer, Tech. Ed.: T.P. Sobolova, Editorial Board: S.S. Acherkan (Chairman, Professor, Ed.), Doctor of Technical Sciences, Professor; V.S. Vlasov, Professor (Deceased); A.N. Malov, Candidate of Technical Sciences; S.S. Podgornykh; A. Ya. Kostoryzh; S.S. Golitsin; and S.A. Chernavskiy; Managing Ed. for Reference Literature: V.I. Krylov, Engineer.

PURPOSE: This handbook may be useful to technicians and engineers working in the field of machine design and production.

COVERAGE: This volume covers the following topics: casting, forging, pressing, stamping, welding, electric methods of machining, and metal cutting. Recently developed electrical methods of machining which are now being used in production are described; viz., the so-called "electroplasma" and "electrohydraulic" methods. 25-personalities are mentioned. There are 79 Soviet references.

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III. Cold Working (A.N. Malov, Candidate of Technical Sciences)

185 Bending, drawing, and shearing of blanks

185 Determination of shape and dimensions of blanks for parts requiring

185 Automatic operations

185 Dimensions of blanks for parts to be made by drawing

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Punching, piercing, notching, and cutting-off operations

Trimming

Bending

Bending without thinning

Cold three-dimensional stamping (S.M. Polyak, Candidate of Technical Sciences)

Cold upsetting (V.A. Popov, Candidate of Technical Sciences)

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ANTIPOV, K.F., inzh.; BALAKSHIN, B.S., prof., doktor tekhn.nauk; BARYLOV, G.I., inzh.; BEYZEL'MAN, R.D., inzh.; BERDICHEVSKIY, Ya.G., inzh.; BOBKOV, A.A., inzh.; KALININ, M.A., kand.tekhn.nauk; KOVALI, V.M., prof., doktor tekhn.nauk; KORSAKOV, V.S., doktor tekhn.nauk; KOSILOVA, A.G., kand.tekhn.nauk; KUDRYAVTSEV, N.T., prof., doktor khim.nauk; KURYSHOVA, Ye.S., inzh.; LAKHTIN, Yu.M., prof., doktor tekhn.nauk; NAYERMAN, M.S., inzh.; NOVIKOV, M.P., kand.tekhn.nauk; PARIYSKIY, M.S., inzh.; PEREPONOV, M.N., inzh.; POPILOV, L.Ya., inzh.; POPOV, V.A., kand.tekhn.nauk; SAVERIN, M.M., prof., doktor tekhn.nauk; SASOV, V.V., kand.tekhn.nauk; SATEL', E.A., prof., doktor tekhn.nauk; SOKOLOVSKIY, A.P., prof., doktor tekhn.nauk [deceased]; STANKEVICH, V.G., inzh.; FRUMIN, Yu.L., inzh.; KHRAMOY, M.I., inzh.; TSEYTLIN, L.B., inzh.; SHUKHOV, Yu.V., kand.tekhn.nauk; MARKUS, M.Ye., inzh., red. [deceased]; GRANOVSKIY, G.I., red.; DEM'YANYUK, F.S., red.; ZUBOK, V.N., red.; MALOV, A.N., red.; NOVIKOV, M.P., red.; CHARNKO, D.V., red.; KARGANOV, V.G., inzh., red. graficheskikh rabot; SOKOLOVA, T.F., tekhn.red.

[Manual of a machinery designer and constructor; in two volumes] Spravochnik tekhnologa-mashinostroitelia; v dvukh tomakh. Glav. red. V.M.Kovan. Chleny red.soveta B.S.Balakshin i dr. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.1. Pod red. A.G.Kosilovoi. 1958. 660 p. (MIRA 13:1)
(Mechanical engineering--Handbooks, manuals, etc.)

MALOV, A. N. (Cand. Tech. Sci.); AZAROV, A. S. (Cand. Tech. Sci.);

- X. "Mechanization and Automation of Machining Processes on General-purpose Machine Tools. 1. Mechanization and automation of turning operations. 2. Mechanization and automation of milling operations. 3. Mechanization and automation of drilling and boring operations." Automation and Mechanization of Production Processes in Instrument Manufacturing, Moscow, Mashgiz, 1958. 591 p.

PURPOSE: This book is intended for engineers, technicians, and scientific personnel concerned with mechanization and automation of production processes in instrument manufacturing, and for students and teachers of this subject in vuzes.

ARISTOV, N.P., kand. tekhn. nauk.; BLAGOSKLONSKIY, T.I., kand. khim. nauk.;
 VESZLOVSKIY, V.S., prof., doktor tekhn. nauk.; VLADISLAVLEV, V.S.,
 prof., [deceased]; GOSTENINA, V.M., inzh.; GRINBERG, B.G., kand.
 tekhn. nauk.; KATTS, N.V., kand. tekhn. nauk.; KESTNER, O.Ye., kand.
 tekhn. nauk.; KIDIN, I.N., prof., doktor tekhn. nauk.; KIRSHENSHTEYN,
 Ye.L., inzh.; KITAYGORODSKIY, I.I., prof., doktor tekhn. nauk.;
 KOLOBNEV, I.F., kand. tekhn. nauk.; KRYLOV, V.V., kand. tekhn. nauk.;
 LAKHTIN, Yu.M., prof., doktor tekhn. nauk.; LEVI, L.I., kand. tekhn.
 nauk.; LEPETOV, V.A., kand. tekhn. nauk.; LUNEV, A.A., kand. tekhn.
 nauk.; LUNEV, F.A., kand. tekhn. nauk., [deceased]; LOTSMANOV, S.N.,
 kand. tekhn. nauk.; MAURAKH, M.A., kand. tekhn. nauk.; MINKOVICH,
 A.N., kand. tekhn. nauk.; OCHKIN, A.V., inzh.; POPOV, V.A., kand.
 tekhn. nauk.; RAKOVSKIY, V.S., kand. tekhn. nauk.; SHESTOPAL,
 V.M., kand. tekhn. nauk.; ACHERKAN, N.S., prof., doktor tekhn.
 nauk, glavnyy red.; MALOV, A.N., red.; POZDNYAKOV, S.N., red.;
 ROSTOVYKH, A.Ya., red.; STOLBIN, G.B., red.; CHERNAVSKIY, S.A., red.;
 KRYLOV, V.I., inzh., red.; KARGANOV, V.G., inzh., red. graficheskikh
 rabot.; SOKOLOVA, T.F., tekhn. red.

[Metal worker's handbook in five volumes] Spravochnik metallista v
 piati tomakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.
 lit-ry. Vol. 3. Book 1. 1958. 560 p. (MIRA 11:11)
 (Metals--Handbooks, manuals, etc.)

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3. Automatic feed of blanks
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working of metal, especially those methods involving the use of various dies. It is claimed that the use of dies is suitable for small-lot as well as for mass production, and may be adapted to automation. Numerous advantages of die stamping over machining from solid stock are enumerated. Great importance is attached to new developments in the use of compound and multiple-stage dies. The theoretical approach to die stamping owes much to the work of A.A. Il'yushin, V.V. Sokolovkiy, Ye. P. Unksov, S.I. Gubkin, A.D. Tomlenov, G.A. Smirnov-Alyayev, L.A. Shofman, Ye. A. Popov, I.A. Noritsin, P.V. Pikhtovnikov, A.I. Tselikov, A.I. Zimin, M.V. Storozhev, V. Ya. Shekhter, E. Zibel', G. Zaks and others. The following have contributed to new practical developments: V.T. Meshcherin, B.P. Zveronov, A. Ya. Freydlin, V.P. Romanovskiy, L.V. Prozorov, M. Ye. Zubitsov, A.N. Gromova, G. Ya. Navrotskiy and others. There are 94 references of which 86 are Soviet, 5 English, 3 German.

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PHASE I BOOK EXPLOITATION

651

Malov, Aleksey Nikolayevich

Tekhnologiya kholodnoy shtampovki (Technology of Cold Pressing and Forging) 2nd ed., rev. Moscow, Oborongiz, 1958. 374 p.
14,000 copies printed.

Reviewer: Kopanevich, Ye. G., Candidate of Technical Sciences;
Ed.: Shekhter, V. Ya., Candidate of Technical Sciences; Ed. of
Publishing House: Belyayeva, L.A.; Tech. Ed.: Rozhin, V.P.;
Managing Ed. (Oborongiz): Sokolov, A.I., Engineer.

PURPOSE: This is the second and revised edition of the book, which contains more specific examples and technical data. It was written for technicians and workers in precision machinery and precision instrument plants, and for personnel engaged in lot and in mass production of radio components.

COVERAGE: In this book the author deals with various aspects of cold

Card 1/9

PROSKURYAKOV, Yuriy Georgiyevich,; MALOV, A.N., kand. tekhn. nauk, ratsenent,;
SHABASHOV, S.P., kand. tekhn. nauk, red.; DUGINA, N.A., tekhn. red.

[Gauging cylindrical holes with mandrels] Dornovanie tsilindricheskikh
otverstii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1958. 110 p. (MIRA 11:11)

(Arbors and mandrels)
(Metalwork)

DANILEVSKIY, Vladimir Viktorovich,; GLEYZER, L.A., dots., kand. tekhn. nauk,
retsenzent,; MALOV, A.N., dots., kand. tekhn. nauk, nauchnyy red.;
LESHCHINSKAYA, N.K., red.; LOKHMANOVA, M.F., tekhn. red.

[Accessory equipment for lathe work, milling, and other operations]
Prisposobleniia dlia tokarnykh, frezernykh i drugikh rabot. Moskva,
1958. 76 p. (MIRA 11:12)

(Machine tools)

SHUKHOV, Yuriy Vladimirovich; MALOV, A.N., red.; SUKHAREVA, R.A., tekhn.red.

[Drawing shapes used in machine building] Profil'noe volochenie v
mashinostroenii. Moskva, 1958. 29 p. (Peredovoi opyt proizvodstva.
Seria "Tekhnologiya mashinostroeniia," no.4) (MIRA 12:4)
(Drawing (Metalwork)) (Machinery--Construction)

MALOV, A.N.

VOLODIN, Ye.I., kandidat tekhnicheskikh nauk; GORODETSKIY, I.Ye., professor, doktor tekhnicheskikh nauk [deceased]; DOSCHATOV, V.V., inzhener; KOROTKOV, V.P., kandidat tekhnicheskikh nauk; MANTSEV, B.M., inzhener; NESTEROVSKIY, M.M., inzhener; PALEY, M.A., inzhener; ROSTOVYKH, A.Ya., kandidat tekhnicheskikh nauk; TAYTS, B.A., professor, doktor tekhnicheskikh nauk; BYDINOV, V.Ya., kandidat tekhnicheskikh nauk; ERVAYS, A.V., inzhener; CHUDOV, V.A., inzhener; ACHERKAN, N.S., doktor tekhnicheskikh nauk, professor, glavnyy redaktor; VLADISLAVLEV, V.S., redaktor; MALOV, A.N., redaktor; POZDNYAKOV, S.N., redaktor; STOLBIN, G.B., redaktor; CHERNAVSKIY, S.A., kandidat tekhnicheskikh nauk, redaktor; MARKUS, M.Ye., inzhener, redaktor [deceased]; KARGANOV, V.G., inzhener, redaktor graficheskikh rabot; SOKOLOVA, T.P., tekhnicheskiiy redaktor

[Metal worker's manual; in five volumes] Spravochnik metallista; v piati tomakh. Red. sovet N.S.Acherkan i dr. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry. Vol.1.(Pod red.S.A.Chernavskogo).1957.603 p. (Mechanical engineering)

MALOV, A. N.

OSTROVSKIY, Viktor Petrovich; ~~MALOV, A.N.~~, kandidat tekhnicheskikh nauk,
redaktor; SOKOLOVA, T.F., tekhnicheskiiy redaktor

[Constructor's handbook on cold die stamping] Spravochnik konstruktora
po kholodnoi shtampovke. Pod red. A.N.Malova.. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit.lit-ry, 1957. 286 p. (MLRA 10:8)
(Sheet-metal work)

Malov, A.N.

YAKHIN, Abram Borisovich, prof., doktor tekhn.nauk [deceased]; MALOV, A.N.,
kand.tekhn.nauk, nauchnyy red.; ROMANOV, B.V., red.; GOROKHOV, Yu.V.,
tekhn.red.

[Automatization of machine tools] Avtomatizatsiia stanochnykh operatsii.
Moskva, Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1957. 50 p.
(Machine tools) (MIRA 11:3)
(Automatic control)

ANTIPOV, K.F. --- (continued) Carl F.

SHAROFIDZ, G.I., redaktor; [illegible], redaktor;
redaktor; SHAROFIDZ, G.V., redaktor; [illegible]
[illegible]; SHAROFIDZ, G.V., redaktor; [illegible]

[Kochin's manual] Sovetskaya aviaciya, [illegible]
v dzhuzh tom 1, red.sovet V.M. [illegible]
i dr. Moskva, Gos.nauchno-tekhn. izdatel'stvo, [illegible]
Vol. 1. (Pod red. A.G. Kochina) [illegible]
Vol. 1. 1954. 534 p.

(Moscowgr indicated)

MALOV A.M.

ANTIPOV, K.F., inzhener; BALAKSHIN, B.S., doktor tekhnicheskikh nauk, professor; BARYLOV, G.I., inzhener; BEYZEL'MAN, R.D., inzhener; BERDICHEVSKIY, Ya.G., inzhener; BOBKOV, A.A., inzhener, KALININ, M.A., kandidat tekhnicheskikh nauk; KOVAN, V.M., doktor tekhnicheskikh nauk, professor; KOROLEV, V.S., doktor tekhnicheskikh nauk; KOSILOVA, A.G., kandidat tekhnicheskikh nauk; KUDRYAVTSEV, N.T., doktor khimicheskikh nauk, professor; KURYSHEVA, Ye.S., inzhener; LAKHTIN, Yu.M., doktor tekhnicheskikh nauk, professor; NAYERMAN, M.S., inzhener; NOVIKOV, M.P., kandidat tekhnicheskikh nauk; PARIY-SKIY, M.S., inzhener; PEREPOLOV, M.N., inzhener; POPILOV, G.Ye., inzhener; POPOV, V.A., kandidat tekhnicheskikh nauk; SAVELIN, M.M., doktor tekhnicheskikh nauk, professor; SASOV, V.V., kandidat tekhnicheskikh nauk; SATUL, S.A., doktor tekhnicheskikh nauk, professor; SOKOLOVSKIY, A.P., doktor tekhnicheskikh nauk, professor [deceased]; STANKOVICH, V.G., inzhener; FRUMIN, Yu.L., inzhener; KHEZHOY, N.T., inzhener; TSEYTLIN, L.B., inzhener; SHUKHOV, Yu.V., kandidat tekhnicheskikh nauk; BABIN, S.I., kandidat tekhnicheskikh nauk; VOLKOV, S.I., kandidat tekhnicheskikh nauk; GORODETSKIY, I.Ye., doktor tekhnicheskikh nauk, professor; GOROSHEIN, A.K., inzhener; DOSCHATOV, V.V., kandidat tekhnicheskikh nauk; ZAMALIN, V.G., inzhener; ISAYEV, A.I., doktor tekhnicheskikh nauk, professor; KODKOV, G.M., kandidat tekhnicheskikh nauk; MALOV, A.M., kandidat tekhnicheskikh nauk; MARDANYAN, M.Ye., inzhener; PANCHENKO, K.P., kandidat tekhnicheskikh nauk; SEKRETEV, D.M., inzhener; STAYEV, K.P., kandidat tekhnicheskikh nauk; SYROVATCHENKO, P.V., inzhener; TAURIN, G.G., inzhener; AL'YASHEVA, M.A., kandidat tekhnicheskikh nauk;

(Continued on next card)

MALOV, A.N.

BERKOVICH, David Mikhaylovich; *MALOV, A.N.*, nauchnyy redaktor; LYUBIN-
SKAYA, A.G., redaktor; KUZ'MIN, D.G., tekhnicheskii redaktor.

[Automatic assembly lines in machinery manufacture] Avtomati-
cheskie linii v mashinostroenii. Moskva, Vses.uchebno-pedagog.
izd-vo Trudrezervizdat, 1956. 105 p. (MLRA 10:6)
(Assembly-line methods) (Machinery industry)

ZERNYAKOV, Boris Stepanovich; TREBELEV, Aron Markovich; BURLAKOV, Vladimir Yevgen'yevich; POLIVANOV, Vasilii Fedorovich; MANZON, Eduard Abramovich; DUNAYEV, Yuriy Andreyevich; UDAL'TSOV, A.N., glavnyy red.; MALOV, A.N., kand.tekhn.nauk, red.; TUCHINSKIY, N.V., inzh., red.; ZASLAVSKIY, M.L., inzh., red.; SMIRNOV, P.V., inzh., red.; NEUSYPIN, A.M., inzh., red.

[New method of preparing aluminum alloys in electric furnaces; Efforts to avoid losses in brass smelting; Use of rolled metal with variable cross section for the manufacture of truck trailer axles; New design of rotor blades for low capacity hydraulic turbines; Lubricant collection in settling basins] Novyi sposob prigotovleniya aluminievyykh splavov v elektricheskikh pechakh; Bor'ba s poteryami pri plavke latuni; Primenenie prokata peremennogo sечения dlia izgotovleniya osei avtopritsepa; Novaya konstruktsiya lopastei rabochnikkh kolez gidroturbin maloi moshchnosti; Sbor masla v otstoinnikakh. Moskva, 1956. 12 p. (Peredovoi proizvodstvenno-tekhnicheskii opyt. Ser.19. Ekonomiya materialov i novye materialy, primenyaemye v mashinostroenii. No.T-56-363/6). (MIRA 13:3)

1. Akademiya nauk SSSR. Institut nauchnoy i tekhnicheskoy informatsii.

(Technological innovations)

Avtomaticheskaya zagruzka metallovezhushchikh
stankov 2-e izd., pere. 1 dopol.

AID 768 - X

Pages

attachment designed by P. Ya. Ryasin;
Lebedev's device for automatic clamping of
a blank or machined part; automatic device
for simultaneous milling of four blanks;
three different attachments used in grinding
machines.

350-385

Ch. VII Hoisting and Loading Devices. Mechanical,
pneumatic and electromagnetic devices, built
into the machine-tool or installed on the
side.

386-398

No. of References: 14 Russian, 1947-1953

Facilities: Experimental Scientific Research Institute of Metal-
Cutting Machinery (ENIMS); All-Union State Institute of Auto-
mobile Technology (ORGAVTOPROM); Central Scientific Research
Institute of Technology and Machine Building (TsNIITMASH); and
Institute of Information on Economics in Technology (ITEIN) at
the Academy of Sciences, U.S.S.R.

6/6

Avtomaticheskaya zagruzka metallovezhushchikh
stankov 2-e izd., pere. 1 dopol.

AID 768 - X

Pages

feeder designed by V. A. Morozov for semi-automatic lathes; Domokurov's feeder for rings; hydraulic feeder for semi-automatic lathes designed by Knyaz'kov; automatic feeder designed by L. I. Shpits for taper rollers; feeders for thread-generating machines; mechanical, pneumatic and electromagnetic stackers; automatic nut-tapping machine, feeder designed by Seleznev and Larichkin; automatic nut-tapping machine designed by V. S. Krasnogolovtsev; feeding devices for hobbing machines; automatic feeding combined with inspection and sorting machines for handling pins, needles, rollers, drills, etc.

220-349

Ch. VI

Automatic and Semi-automatic Devices.

Mechanical attachments for drilling machines, pneumatic devices for making holes in bushings, devices used for continuous and recurrent action; used in milling machines; semi-automatic spacing

Avtomaticheskaya zagruzka metallovezhushchikh
stankov 2-e izd., pere. 1 dopol.

AID 768 - X

Pages

- Ch. IV Feeders for automatic and semi-automatic loading devices. Feeders with rocking motion and pendulum type feeders, revolving and dial plate type feeders, pneumatic and grab-arm type feeders, and feeders with complicated movements. 193-219
- Ch. V Examples of loading devices for metal-cutting machine tools and for assembling aggregates. Samples of a score of feeders of various types used in different machine-tools are given: spiral-type feeder for automatic turret lathes; pendulum-type feeder for automatic machines; feeder with a chain-clamping feature; disc-type feeder for automatic turret lathe; feeder for multiple spindle automats; feeder for multi-cutting machines; feeders designed by G. A. Shaumyan for semi-automatic lathes; chain-type feeding devices for bushings and shafts; Bulgakov's automatic feeder as an auxiliary attachment; ring, racers and similar blank

Avtomaticheskaya zagruzka metallovezhushchikh
stankov 2-e izd., pere. 1 dopol.

AID 768 - X

Pages

- Ch. II Gripping devices and mechanisms for directing flow of blanks in automatic feeders. Single and double motion types of gripping and handling mechanisms: blade, disk, chain or pockets, rotor suction or through a slot, toothed wheel or wheel with radial pockets, and combined types; handling or catching blanks from the inside and outside; driving and transmission gears. 11-134
- Ch. III Magazines, mechanisms for feeding blanks by the piece, devices controlling position of the blanks, contrivances for separation of flow of blanks and mechanisms for assembly of blanks in two flows. Various types of magazines, trays and other mechanisms for handling blanks by the piece and in single and double flow; devices controlling position of blanks in flow; mechanisms for division of flow of blanks; mechanisms for integration of two flow of blanks into one assembly or part. 135-192

Avtomaticheskaya zagruzka metallovezhushchikh
stankov 2-e izd., pere. 1 dopol.

AID 768 - X

William R. Jeffries (1955), the Elementary Tool Design, by
Elmer B. Benson (1954), and Mechanisms of Machine Tools, by
Thomas R. Show (first published in 1923).

TEXT DATA

Coverage: The second edition of this book presents the most typical designs and construction of the loading devices used in Soviet metal-cutting machines, in inspecting and sorting machines, and in special machines for parts assembly. It provides mathematical formulae for computation coordination, and efficient operation of loading devices and automatic controlling mechanisms. Information pertaining to the mechanized cold stamping process, was purposely excluded from this second edition and incorporated into a separate work. There are 359 drawings, sketches and pictures of various mechanisms or parts, 15 tables, a few GOST standards, several original designs of Soviet inventors, and numerous mathematical formulae throughout the text.

Table of Contents

Ch. I	<u>Loading devices, types and designation. General information - broad outline of various loading devices.</u>
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Pages

5-10

PHASE X TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 768 - X

BOOK

Call No.: AF699698

Author: MALOV, A. N., Kand. Tech. Sci.

Full Title: ~~AUTOMATIC~~ LOADING IN METAL CUTTING MACHINES
2nd ed., rev. and enl.

Transliterated Title: Avtomaticheskaya zagruzka metallovezhushchikh
stankov 2-e izd., pere. 1 dopol.

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific Research Publishing House of
Machine-Building Literature (Mashgiz), Moscow

Date: 1955 no. pp.: 400 No. of copies: 7,000

Editorial Staff:

Editor - Brodskiy, M. G., Eng.

Appraiser - Vladziyevskiy, A. P., Kand. Tech. Sci.

PURPOSE AND EVALUATION: Written specifically for mechanical engineers and designers engaged in machine and instrument manufacturing plants, this book deserves attention because it presents a good description of the automatic loading devices which have been found most efficient in operation. Among the few Russian books on the subject, this one should have a high rating. It may be favorably compared with such books as Tool Design by

MALOV, A.N.; PREYS, V.F.; MALIKOV, A.N., retsenzent; inzhener;
MANAKIN, N.B., redaktor; KIRSANOVA, S.B., inzhener, redaktor;
POPOVA, S.M., tekhnicheskii redaktor.

[Mechanization and automatization of punch-press work] Mekha-
nizatsiia i avtomatizatsiia shtampovochnykh rabot. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1955. 307 p.
(Sheet-metal work---Stamping) (MLRA 8:11)

[Principles of metal cutting and cutting instruments] Osnovy rezaniia
metallov i rezhushchii instrument. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit, lit-ry, 1955. 275 p. (MLRA 9:2)
(Metal cutting) (Cutting tools)

Mechanization and Automation (Cont.)	SOV/3696
TABLE OF CONTENTS:	
Ch. I. Mechanization and Automation of Strip and Band Feeding	3
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2. Grip-type feeds	10
3. Roll-type feeds	14
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PHASE I BOOK EXPLOITATION

SOV/3696

Malov, A. N., Candidate of Technical Sciences, Docent

Mekhanizatsiya i avtomatizatsiya v shtampevochnom proizvodstve (Mechanization and Automation in Stamping) Leningrad, Mashgiz, 1955. 74 p.
(Series: Bibliotekha shtampovshchika, vyp. 10) 6,500 copies printed.

General Ed.: V. P. Romanovskiy, Candidate of Technical Sciences, Docent;
Reviewer: M. I. Sverdlov, Candidate of Technical Sciences; Ed.: L. M. Reznitskiy, Candidate of Technical Sciences; Tech. Ed.: L. V. Sokolova;
Managing Ed. for Literature on Machine Building Technology (Leningrad Division, Mashgiz): P. S. Nikitin, Engineer.

PURPOSE: This booklet is intended for technical personnel, foremen, and die setters in stamping shops.

COVERAGE: The booklet deals with cold stamping operations and the experience of Soviet plants in the mechanization and automation of such operations. The construction of mechanisms for mechanizing and automating blank feeding is described. Special attention is given to the use of such mechanisms in the machinery and instrument-manufacturing industries. No personalities are mentioned. There are 11 references, all Soviet.

Card 1/2

MAISON, A. N.

VAYNTRAUB, D.A., inzh.; ROMANOVSKIY, V.P., kand.tekhn.nauk, dots., red.;
~~MAISON, A.N.~~, kand.tekhn.nauk, retsenzent; ZORIN, N.K., inzh.
red.; POL'SKAYA, R.G., tekhn.red.

[Improving precision of stamped parts requiring punching and
bending] Povyshenie tochnosti shtampuemykh detalei pri vyrubke i
gibke. Pod obshchei red. V.P.Romanovskogo. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit. lit-ry, 1955. 65 p. (Bibliotekha
shtampovshchika, no.3) (MIRA 11:2)
(Punching machinery)

MALOV A.N.

ROMANOVSKIY, V.P., kandidat tekhnicheskikh nauk, dotsent; MALOV, A.N.,
kandidat tekhnicheskikh nauk, dotsent, retsenzent; KOSMACHEV, I.G.,
inzhenер, redaktor; POL'SKAYA, R.G., tekhnicheskiy redaktor

[Reference book on cold stamping] Spravochnik po kholodnoi shtampov-
ke. Izd. 2-e dop. i perer. Moskva, Gos. nauchno-tekhn. izd-vo
mashinostroit. i sudostroit. lit-ry, 1954. 494 p. (MLRA 7:10)
(Metals--Cold working)

SOKOLOVSKIY, I.A.; ALEKSEYEV, G.A., inzhener laureat Stalinskoi premii, retsenzent; MALOV, A.N., kandidat tekhnicheskikh nauk, redaktor.

[Cutting tool for instruments manufacturing] Rezhushchii instrument dlia priborostroeniia. Moskva, Gos. nauchno-tekh.izd-vo mashinostroit. i sudostroit. lit-ry, 1954. 374 p. (MIRA 7:6)
(Cutting tools)

MAIOV, A.N.; SHOFMAN, L.A., kandidat tekhnicheskikh nauk, redaktor;
ZULAKIN, I.M., tekhnicheskiiy redaktor

[The operator of cold stamping machinery] Shtampovshchik po kholodnoy shtampovke. Moskva, Gos. izd-vo oboronnol promyshlennosti, 1954. 214 p. (MLRA 8:6)
(Power presses) (Metals--Cold working)

SAVIN, V.N., inzhener; GALEY, M.T., kandidat tekhnicheskikh nauk, retsenzent;
MALOV, A.N., kandidat tekhnicheskikh nauk, redaktor; MODEL', B.I.,
tekhnicheskii redaktor

[Hard alloy tools in instrument making; experience of the 2nd Moscow
Clock Factory] Tverdosplavnyi instrument v priborostroenii; iz opyta
2-go moskovskogo chasovogo zavoda. Moskva, Gos. nauchno-tekhn. izd-vo
mashinostroit. lit-ry, 1954. 117 p. (MIRA 8:4)
(Metal-cutting tools) (Dies (Metal working))

SHUTOY, V.Ye.; MAL'TSEV, A.N., nauchnyy redaktor; PEREPELITSKAYA, A.G.,
redaktor; DMITRIYEVSKAYA, N.I., tekhnicheskiy redaktor.

[Reunion of the Ukraine with Russia; 300th anniversary] Vossoedinenie Ukrainy s Rossiei; k 300-letiyu. Moskva, Gos.izd-vo kul'turno-prosvetitel'noi lit-ry, 1954. 61 p. (Bibliotekha v pomoshch' lektoru, no.2) [Microfilm] (MLRA 7:10)
(Ukraine--History)

MALOV, A.N.

MATYUSHIN, V.M., kandidat tekhnicheskikh nauk, dotsent; MALOV, A.N.,
retsensent; LARIN, M.N., redaktor; MATVEYEVA, Ye.N., tekhnicheskii
redaktor

[Gear shaping] Zubodolblenie. Moskva, Gos. nauchno-tekhn. izd-vo
Mashinostroit. i sudostroit. lit-ry, 1953. 183 p. [Microfilm]
(Gearing) (MLRA 7:10)

KAMYSHNYY, N.I., kandidat tekhnicheskikh nauk; VEDERNIKOV, A.I., inzhener, retsenzent; MALOV, A.N., kandidat tekhnicheskikh nauk, redaktor; BUTYLKIN, A.G., tekhnicheskiiy redaktor.

[Feed mechanisms for automatic machine tools] Mekhanizmy pitaniia avtomaticheskikh stankov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroita, lit-ry, 1951. 96 p. (MLRA 8:1)
(Machine tools)

MALOV, A. N.

36160 Avtomatizatsiya i mekhanizatsiya zapruzki zagotovok na metallovezhushchiKh
stankaKh. V sb: Spetsializir. Stanki v mashinostroyeni. M-L., 1949, S. 61-84.

SO: Letopis' Zhurnalnykh Statey, No. 49, 1949

YELIZAVETIN, Mikhail Alekseyevich; MALOV, A.N., nauchnyy red.; LITVAK, D.S.,
red.; PEREDERIY, S.P., tekhn. red.

[Mechanization and automation in the manufacture of machinery] Mekha-
nizatsiia i avtomatizatsiia v mashinostroenii. Moskva, Vses. uchebno-
pedagog. izd-vo Proftekhizdat, 1961. 211 p. (MIRA 14:7)
(Automation) (Machinery industry--Technological innovations)

MALOV, A. N.

Tekhnologiya kholodnoi shtampovki. Moskva, Oborongiz, 1949. 485 p. illus.

Bibliography: p. 481-(482).

(Technique of cold stamping.)

DLC: TS253.M27

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

MALOV, A. N., YAKHIN, A. B., MATALIN, A. A., and KASHEPAVA, M. Ya.

"Technology of Precision Instrument Construction," Oborongiz, 1949

Translited TABCON W-13137, 1 Sep 50

MALOV, A. N.

Gibka listovogo materiala. (Vestn. Mash., 1948, no. 4, p. 56-62)

(Bending sheet material.)

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

RAKOVSKIY, V.S., kand. tekhn. nauk; BAL'SHIN, M.Yu., kand. tekhn. nauk,
retsenzent; MALOV, A.N., kand. tekhn. nauk, red.; POPOV, S.M.,
tekhn. red.

[Powdered metals in the machinery industry] Metallokeramika, v mashi-
nostroenii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.
lit-ry, 1948. 119 p. (MIRA 11:8)

(Powder metallurgy)

MALOV, A.N., dotsent, kand.tekhn.nauk; YERUKHIMOVICH, TS.M., red.;
ZUDAKIN, I.M., tekhn.red.

[Manufacturing cartridges for small arms] Proizvodstvo patronov
strelkovogo oruzhiia. Moskva, Gos.izd-vo obor.promyshl., 1947.
414 p. (MIRA 14:1)

1. Moskovskoye vyscheye tekhnicheskoye uchilishche im. Baumana
(for Malov). (Cartridges)

MALOV, A.N.

[Automatic loading of metal-cutting machines] Avtomaticheskaya zagruzka
metallorézhushchikh stankov. Moskva, Mashgiz, 1947. 283 p. (MLRA 7:4)
(Metal cutting)

L 45920-66

ACC NR: AP6028605

equations can also be employed to calculate the effect of the fringe field of a cylindrical capacitor of the type frequently used in mass spectrometers and the like, provided the radius of the cylindrical capacitor is large compared with the distance between its plates. Orig. art. has: 30 formulas and 1 figure.

SUB CODE: 20 SUBM DATE: 03Jul65 ORIG. REF: 002 OTH REF: 003

Card 2/2 mjs